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DC drives 1° EXAM

Q1) a. What is meant by electrical drives? Draw the block diagram of an electrical drive

b. Draw the block diagrams of the available AC to dc converters.

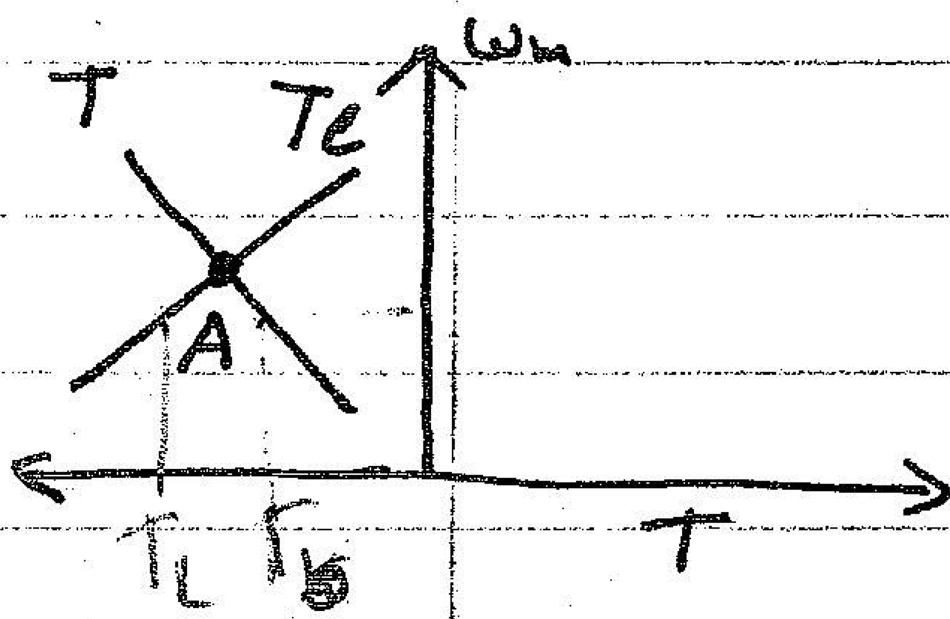
c. what are the disadvantages of dc motors?

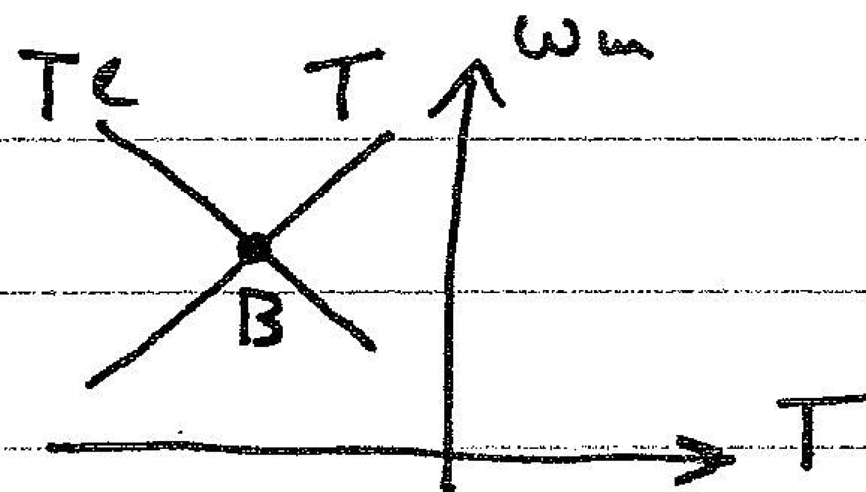
d. what does the choice of an electrical drive depend on?

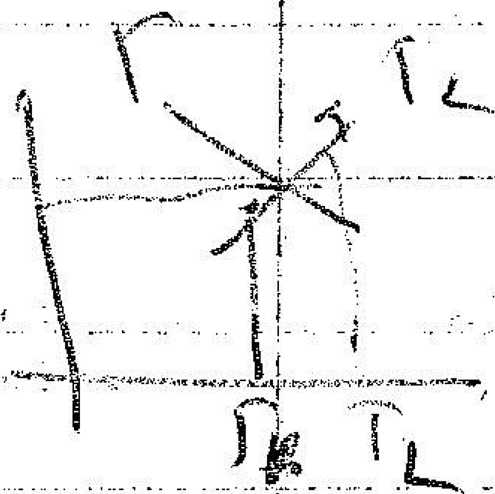
Q2) a. Write the equation of the components of load torque.

b. draw the speed-torque characteristic of high speed hoist and traction load.

Q3) find out if points A and B are stable or not. why?







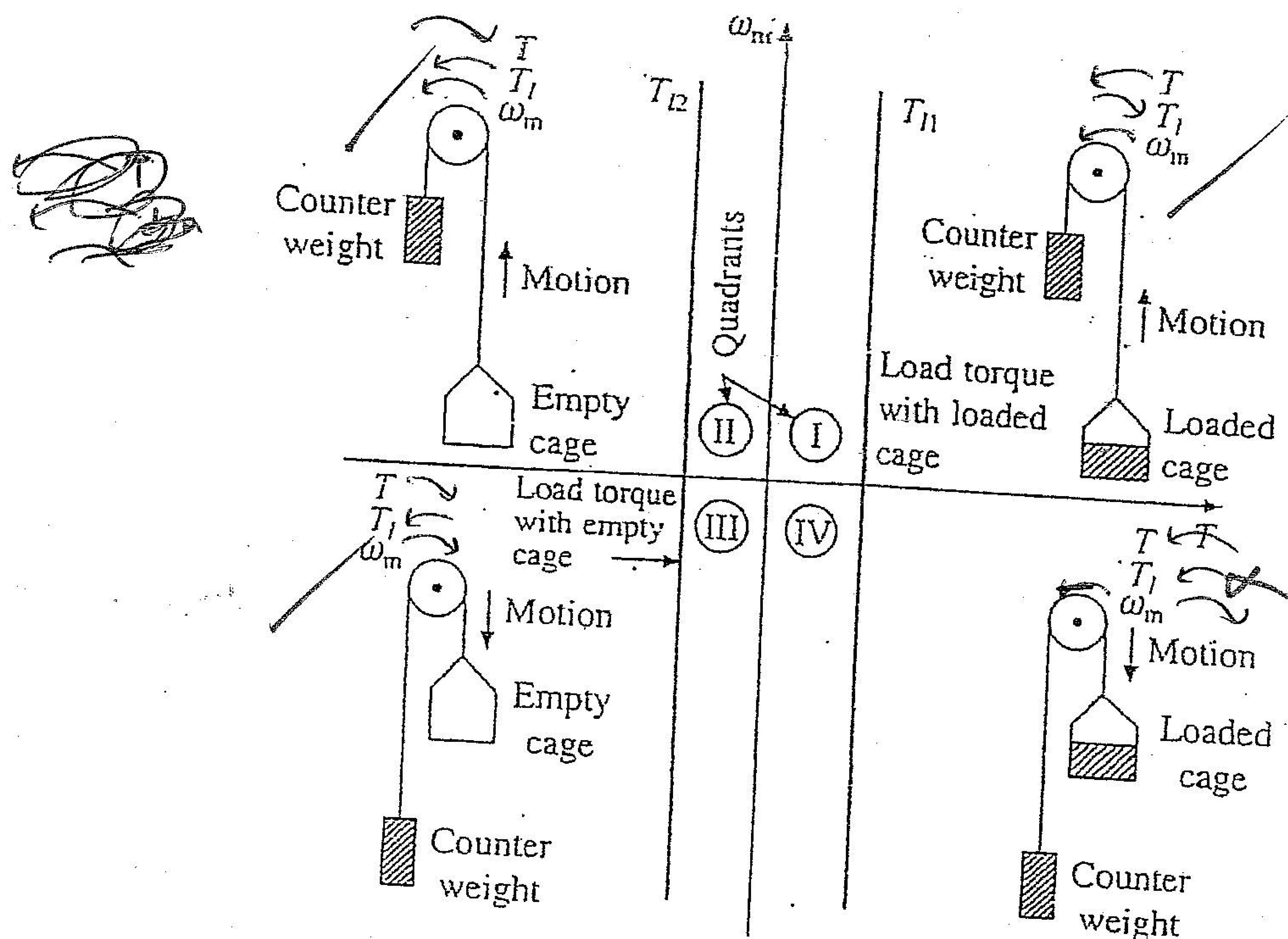
الامتحان الأول
DC Drives

تم الرفع بواسطة م. معن الوعيسي

Q4) for the following hoist

(5.5) a) show the direction of ω_m, Te and T.

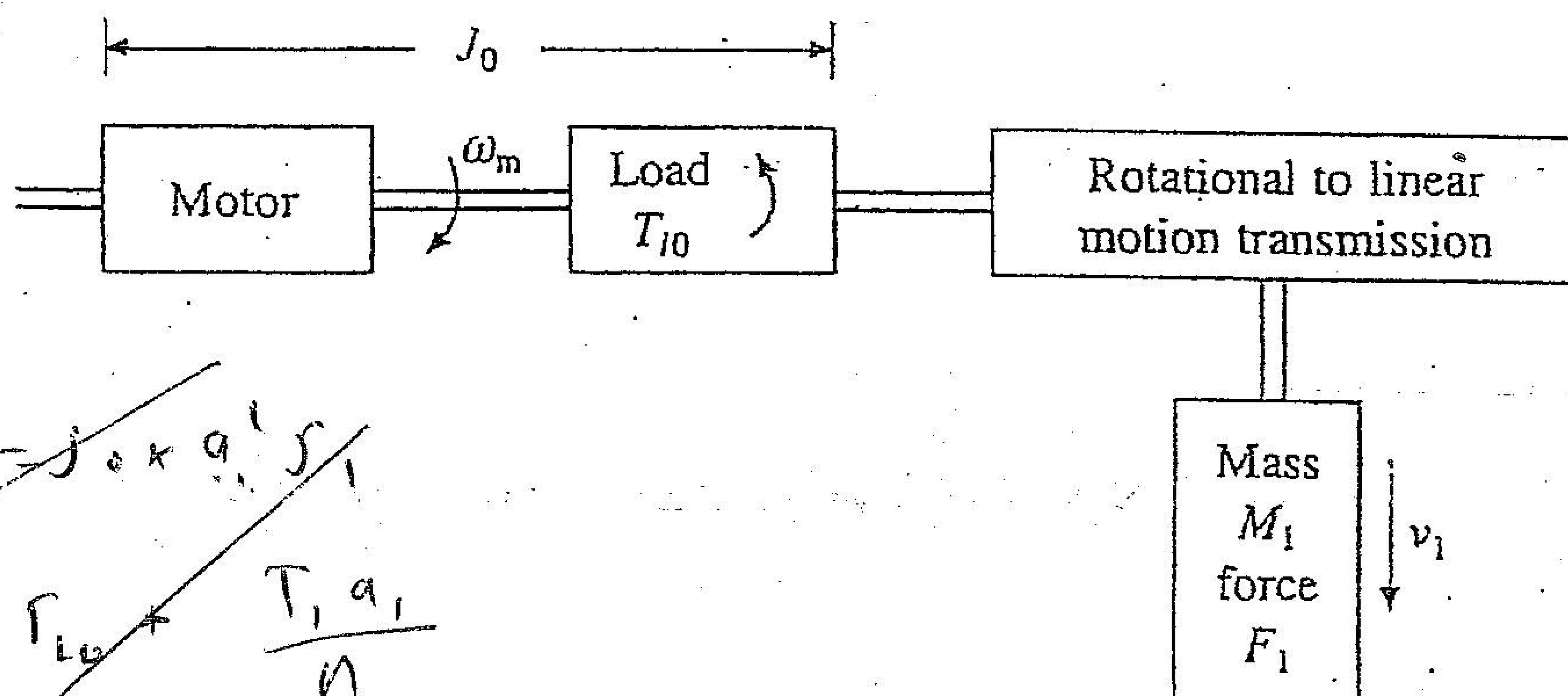
b) explain the operation of the motor in quadrant IV.



Q5) for the following system find

a- The total equivalent torque.

b. The total equivalent moment of inertia.



~~$J = J_0 + a_1^2 J_1$~~

~~$T = T_{L0} + \frac{T_1 a_1}{n_1}$~~

~~$J = J_0 + M\left(\frac{v}{\omega_m}\right)^2$~~

~~$T = T_{L0} + \frac{F}{n_1}\left(\frac{v}{\omega_m}\right)$~~